

REMARKS

Claim Amendments

Claims 1, 5-13, 16-22, 24, and 25 are pending. Claims 4, 15, 27, and 28 are canceled without prejudice or disclaimer. Applicant reserves the right to file divisional or continuation patent applications drawn to cancelled subject matter. Claims 1 and 13 are amended. Claims 29 and 30 have been added. Support for the amendments can be found throughout the specification and the original claims as filed. *See, e.g.*, ¶¶ [0059], [0062], [0076], [0077], [0080], [0106]-[0110], [0119], [0140], and [0141].

Applicant submits that the claim amendments do not raise new issues that would require further consideration and/or search. Indeed, claims 1 and 13 have been amended to incorporate the subject matter of claims 4 and 15, respectively. Applicant has also canceled a greater number of claims than have been added.

Applicant respectfully requests entry of this amendment and submits that no new matter has been added.

Claim Objections

Claims 1 and 13 were objected to due to informalities. Claims 1 and 13 have been amended rendering the grounds for this objection *moot*.

Rejections under 35 U.S.C. § 112, First Paragraph (enablement)

Claims 1, 4-13, 15-22, 24, 25, 27, and 28 stand rejected under 35 U.S.C. § 112, first paragraph, because the specification, while allegedly being enabling for a *genetically modified plant cell comprising SEQ ID NO: 3 or nucleic acid encoding SEQ ID NO: 4, does not reasonably provide enablement for any modified plant cell with an increase in activity of any Class 3 branching enzyme, wherein the modification is a nucleic acid sequence with at least 80% identity to SEQ ID NOs: 3 or 4, or any nucleic acid that hybridizes to SEQ ID NO: 3 under stringent conditions.* Office Action at page 3. Applicant respectfully traverses this rejection.

The Office Action contends that the claims contain an improper incorporation by reference due to the inclusion of accession numbers. *See* Office Action at page 3. The Office Action also objects to the recitation of hybridization and 80% identity claim elements.

Applicant has amended claims 1 and 13 to remove the reference to accession numbers, hybridization language, and 80% identity. As amended, the claims relate to a nucleic acid molecule encoding a protein comprising the amino acid sequence of SEQ ID NO: 4, and fragments, allelic variants, or derivatives thereof that retain the biological activity of a nucleic acid molecule encoding a protein comprising the amino acid sequence of SEQ ID NO: 4. *See e.g.*, Specification at ¶¶ [0140], [0141]. Applicant submits that the specification provides the requisite guidance for one of skill in the art to make and use the claimed polypeptides.

Rejections under 35 U.S.C. § 112, First Paragraph (written description)

Claims 1, 4-13, 15-22, 24, 25, 27, and 28 stand rejected under 35 U.S.C. § 112, first paragraph as allegedly failing to comply with the written description requirement. Applicant respectfully traverses this rejection.

The Office Action contends that the claims contain an improper incorporation by reference due to the inclusion of accession numbers. *See* Office Action at pages 3-4. The Office Action also objects to the recitation of hybridization and 80% identity claim elements.

Applicant has amended claims 1 and 13 to remove the reference to accession numbers, hybridization language, and 80% homology. As amended, the claims relate to a nucleic acid molecule encoding a protein comprising the amino acid sequence of SEQ ID NO: 4, and fragments, allelic variants, or derivatives thereof that retain the biological activity of a nucleic acid molecule encoding a protein comprising the amino acid sequence of SEQ ID NO: 4. *See e.g.*, Specification at ¶¶ [0140], [0141]. Accordingly, Applicant submits that specification describes the claimed subject matter in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. *See e.g.*, Specification at ¶ [0074]-[0077].

Rejections under 35 U.S.C. § 112, Second Paragraph

Claims 1, 4-13, 15-22, 24, 25, 27, and 28 stand rejected under 35 U.S.C. §112, second paragraph as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant respectfully traverses this rejection.

The Office Action contends that the recitation of “enzymes has an iso-amylase domain (Pfam acc.: Pf02922) and an alpha-amylase domain (Pfam acc.: Pf00128)” is unclear. Office Action at page 5. Applicant has amended claims 1 and 13 to remove this recitation rendering this rejection *moot*.

CONCLUSION

It is believed that these amendments and remarks should place this application in condition for allowance. A notice to that effect is respectfully solicited. If the Examiner has any questions relating to this response or the application in general he is respectfully requested to contact the undersigned so that prosecution of this application may be expedited.

Respectfully submitted,

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